Hyrtanella: A New Genus of Ephemerellidae from Malaysia (Ephemeroptera)[1]

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Collections of mayflies from Malaysia by a party composed of G. F. and C. H. Edmunds (University of Utah), and W. L. and J. G. Peters, and W. M. Beck, Jr. (Florida A. & M. University) included nymphs and female imagoes of an undescribed genus and species.

Hyrtanella, new genus

Female Imago. General color brown. Body small to moderate in size. Eyes small, not divided. Claws dissimilar. Fore wings with short marginal intercalaries, crossveins moderate in number; one intercallary between IMP and MP_2, none between MP_2 and CuA, and only three between CuA and CuP (Fig. 2a). Hind wings proportionately small with small, sharp costal projection at wing mid-length; hind wings with few crossveins (Figs. 2b–3). Abdominal segments with irregular lateral margins; segments 1–5 broadly expanded laterally, segments 6–7 narrow, segment 8 broad, expanded posteriorly, and segment 9 concave and narrow posteriorly; abdominal tergum 8 with sharp median posterior tubercle (Fig. 4). Caudal filaments pale, lateral cerci and median terminal filament subequal.

Nymph. Head with frontal and occipital tubercles (Fig. 1); labrum entire, with shallow median emargination and anterior surface with setae; mandibles with well developed incisors and molar surface, base produced into lateral tooth-like protuberance; maxillae with well developed apical incisors; maxillary palpi 1-segmented, with apical spine. Thoracic segments with dorsal and ventral tubercles (Figs. 5–6). Fore femora with tubercles on anterior surface; tarsal claws with palisade of subapical denticles. Abdominal segments with dorsal (Fig. 1) and ventral (Fig. 5) tubercles; lamellate tracheal gills on segments 3–6; gills operculate on segment 3, imbricated on segments 4–6; abdominal terga 4–8 depressed sublaterally with lateral margins forming distinct excavation (Fig. 6). Caudal filaments with setae, shorter than body.

Male Imago. Unknown. Eyes divided, as seen in nymph.

Type Species. Hyrtanella christineae Allen and Edmunds, new species.

The genus belongs in the subfamily Ephemerellinae and is closely related to *Ephemerella* Walsh, 1862. The taxon is distinguished from *Ephemerella*, and all other Ephemerellidae, in the adult stage by the reduced number of marginal intercalaries between CuA and IMP

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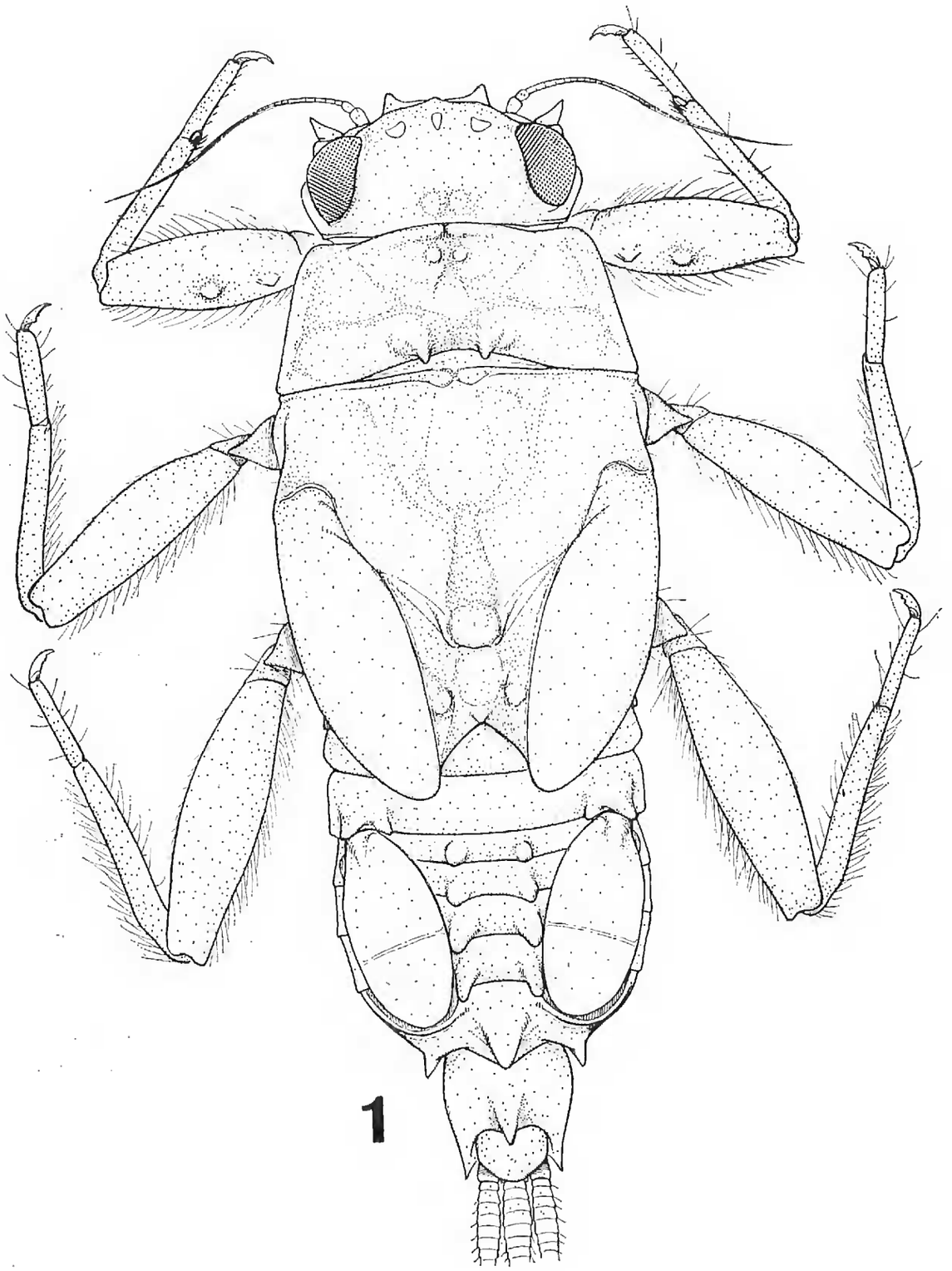


FIG. 1. *Hyrtanella christineae*, mature nymph, dorsal view.

in the fore wings, the number of crossveins and the sharp, mid-length, costal projection in the hind wings, and the shape of the abdomen with enlarged 8th and 9th segments preceded by narrowed and shortened segments. Nymphs are distinguished by possessing operculate gills on segment 3, by the shape of the abdominal segments and the posses-

sion of a dorsal sublateral depression on segments 4–8, and by the mandibles bearing a lateral toothlike protuberance.

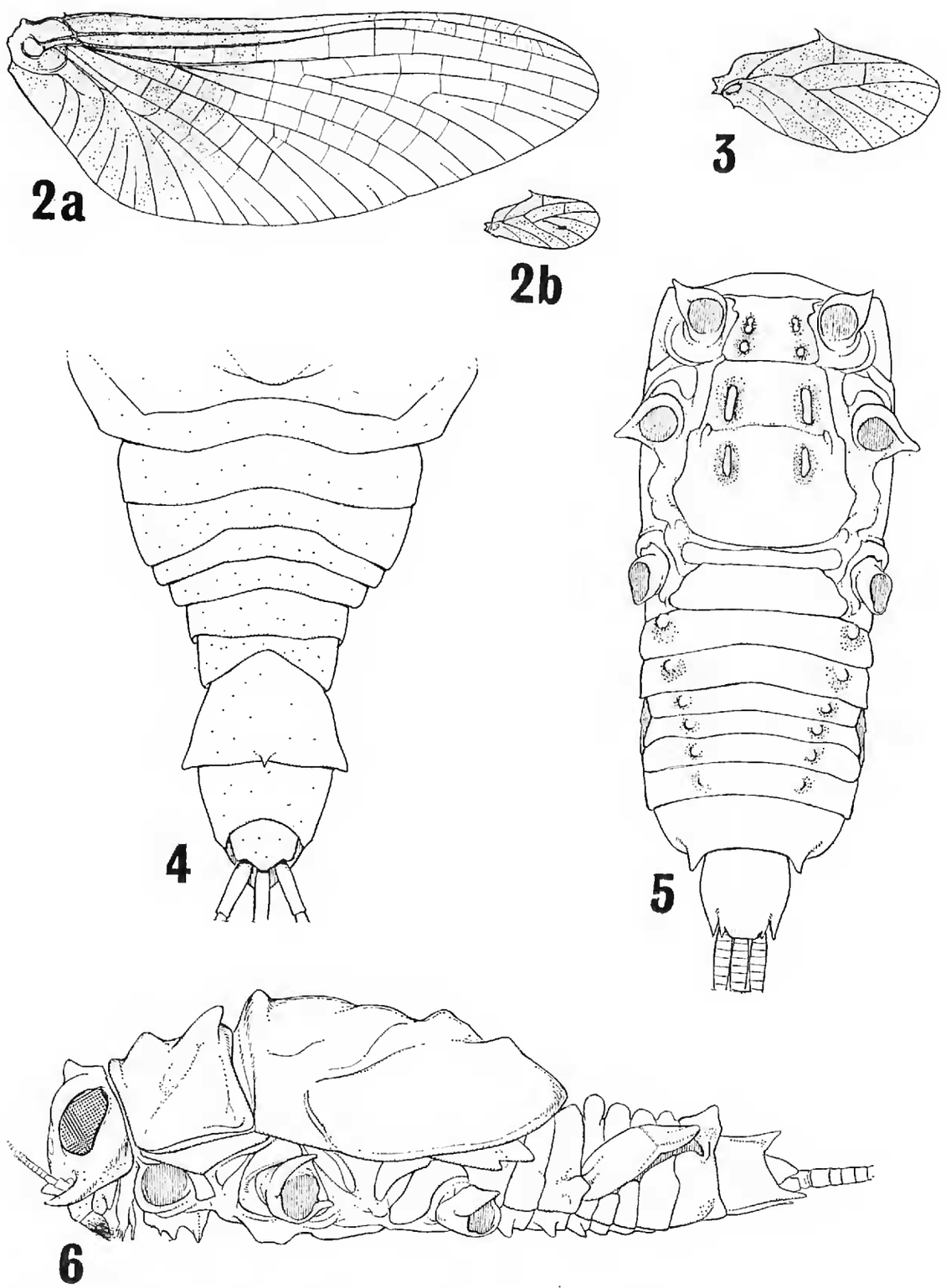
Hyrtanella is the sixth genus of Ephemerellidae to be reported from Asia. *Ephemerella* is widely distributed from Russia to Southeast Asia and eight of the thirteen subgenera have been reported from this part of the world. The subgenera *Cincticostella* Allen, 1971, *Drunella* Needham, 1905, *Ephemerella* s. s., *Serratella* Edmunds, 1959, *Teloganopsis* Ulmer, 1939, and *Torleya* Lestage, 1917, are known from the nymphal and adult stages, and *Acerella* Allen, 1971, and *Crinitella* Allen and Edmunds, 1963, are known only from nymphs. The genus *Ephemerellina* Lestage, 1924, known from nymphs and adults, is reported from eastern China, and *Vietnamella* Tshernova, 1972, was described from nymphs collected in Vietnam and is tentatively placed in the subfamily Teloganodinae. *Hyrtanella* is known from female imagoes and male and female nymphs from Malaysia. *Hyrtanella christaneae* is described from Sabah, East Malaysia (6°03′ N. and 116°32′ E.), and an undescribed species was recently discovered in the John E. Bishop collection from Kuala Lumpur, Malaysia (3°08′ N. and 101°42′ E.). *Teloganodes* Eaton, 1882, known from all developmental stages, has been reported from Ceylon, Java, the Philippines, and Sumatra, and specimens of an undescribed species were collected from the same stream as *Hyrtanella* near Kuala Lumpur, Malaysia. The genus *Teloganella* Ulmer, 1939, is known from a single female imago collected in Sumatra, and the placement of this taxon to family is provisional until the male imago and nymph are discovered.

Etymology. *Hyrtanella* is from the Greek work *hyrtane* meaning potlid, and the Latin diminutive *ella* which conforms to generic names common in the family.

Hyrtanella christineae, new species

Female Imago. Length: body 3.5–4.5 mm; fore wing 6.0–7.0 mm; caudal filaments 3.0–4.0 mm. General color brown. Head brown. Pronotum brown; mesonotum brown with dark linear markings along sutures; fore wings hyaline, basal 40% brown, apical portion hyaline (Fig. 2a); longitudinal veins brown; hind wings hyaline, marked with brown except at apex (Fig. 3); longitudinal veins brown; legs light brown. Abdomen brown, without markings. Caudal filaments dark brown.

Mature Nymph. Length: body 6.5–7.5 mm; caudal filaments 2.5–3.5 mm. General color brown to dark brown. Head brown; head with paired occipital tubercles; genae produced anteriorly; clypeus with paired submedian projections (Fig. 6). Thorax brown; nota brown with irregular brown markings; prothoracic nota with paired anterior and posterior submedian tubercles; mesothoracic nota with median and paired submedian posterior protuberances, thoracic sterna brown;



FIGS. 2–6. *Hyrtanella christineae.* Fig. 2a, fore wing female; Fig. 2b, hind wing female; Fig. 3, hind wing female (enlarged); Fig. 4, abdomen female, dorsal view; Fig. 5, body nymph, ventral view; Fig. 6, head and body nymph, lateral view.

prothoracic sterna with double sublateral sharp protuberances; meso- and metathoracic sterna with single sublateral blunt protuberances; legs light brown, margined with setae; fore femora with median and basal anterior tubercle (Fig. 1); tarsal claws with palisade of 6–8 submarginal denticles. Abdominal

terga brown; terga 4–7 with paired submedian tubercles; terga 8–9 with median tubercle; abdominal segments 8–9 with posterolateral projections (Fig 1); abdominal sterna 2–7 with paired sublateral protuberances (Fig. 5). Caudal filaments brown with fine setae.

Holotype: mature nymph, LIWAGU RIVER NR. LIWAGU CAVE, SE HEADQUARTERS, KINABALU NATL. PK., 1525 M, SABAH, EAST MALAYSIA, 14/15-VIII-72, G. F. and C. H. Edmunds, and W. L. and J. G. Peters in collection University of Utah, Salt Lake City. Paratopotypes: 50 nymphs, same date and locality as holotype, G. F. and C. H. Edmunds and/or W. L. and J. G. Peters, 17 nymphs in collection Florida A. & M. University, Tallahassee, 10 in collection California State University, Los Angeles, 2 each in collections California Academy of Sciences, San Francisco, Canadian National Collection, Ottawa, and Smithsonian Institution, Washington, D. C., remainder in collection University of Utah. Paratypes: 4 nymphs, 46 female imagoes, Liwagu River N. Kundassan, 915 m, Sabah, East Malaysia 16/17-VIII-72, W. M. Beck, Jr. or W. L. and J. G. Peters, or G. F. and C. H. Edmunds, 5 female imagoes each in collections University of Utah and California State University, Los Angeles, 2 each in collections California Academy of Sciences, Canadian National Collection, and Smithsonian Institution, remainder in collection of Florida A. & M. University.

SCIENTIFIC NOTE

A NEW RECORD OF ACANTHOCININE CERAMBYCID FROM AMERICA NORTH OF MEXICO.—Over the past four years, several specimens of a distinct cerambycid have been collected by the author in Santa Cruz County, Arizona. These specimens have been tentatively identified as *Lepturges infilatus*, Bates, previously recorded from Nicaragua, Guatemala and Mexico. The northern most record is listed from Misantla, a small town near the Gulf of Mexico north of Vera Cruz. Dillon, (1956, Ann. Ent. Soc. America, 49:332–355), in his revision of the Tribe Acanthocini, lists six species of *Lepturges* from America North of Mexico, and only one from Arizona.

Since the initial record in July 1971, seven specimens have been taken at black light and mercury vapor light in Southern Arizona. Specimens are in the collections of: D. G. Marqua; A. E. Lewis; J. E. Wappes; University of California, Berkeley.—DAVID G. MARQUA, *Los Angeles County Nature Centers, 1000 N. Durfee Ave., S. El Monte, Ca. 91733.*